

POND

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 378



DEFINITION

A pond is a water impoundment made by constructing a dam or by excavating a pit or dugout.

PRACTICE INFORMATION

If a dam is constructed, the pond is referred to as an embankment pond; if the pond storage is achieved solely by excavating material, the pond is referred to as an excavated pond.

The purpose of this type of pond is to provide water for livestock, recreation, and fish and wildlife. Other uses include providing a water supply for things such as fire control and crop or orchard spraying.

The NRCS POND standard applies under the following conditions:

1. If a dam is constructed, failure will not result in loss of life, damage to homes, commercial buildings, main highways, railroads, or interruption of public utilities.
2. The product of the storage (acre feet) times the effective height of the dam is less than 3000.

3. The effective height of the dam is 35 ft. or less.

Design and installation of a pond requires the following conditions:

1. The site must be such that runoff from the design storm can pass safely through a natural or constructed spillway. The spillway (s) may be the principal spillway, emergency spillway, or combination of both.
2. The drainage area must be protected from erosion that would significantly reduce the expected life of the structure.
3. The drainage area must be large enough so that surface runoff and groundwater flow will normally maintain an adequate supply of water in the pond.
4. The water quality must be suitable for the intended use of the water.
5. The topography and soil must be suitable for the structure.

Additional information including design criteria and specifications are filed in the local NRCS Field Office Technical Guide.

The following pages contain the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

NOTE: recorded in Microsoft word 6.0 - use tabs to change cells/fields

STATE	Iowa	FIELD OFFICE		DATE	12/5/96
PRACTICE: 378 POND			NOTES:		
RESOURCE: SOIL			Help Message: Click on form field for choice lists. Tab key to move around. "N/A" is the default.		
RESOURCE CONCERN: EROSION					
RESOURCE INDICATORS			PHYSICAL EFFECTS		
SHEET AND RILL			insignificant		
WIND			N/A		
EPHEMERAL GULLY			slight reduction in ephemeral gully erosion		
CLASSIC GULLY			significant reduction in classic gully erosion		
STREAMBANK			slight reduction in streambank erosion		
IRRIGATION INDUCED			N/A		
SOIL MASS MOVEMENT			N/A		
ROADBANK/CONSTRUCTION			N/A		
OTHER					
RESOURCE CONCERN: SOIL CONDITION					
SOIL TILTH			N/A		
SOIL COMPACTION			N/A		
SOIL CONTAMINATION					
• SALTS			N/A		
• ORGANICS			N/A		
• FERTILIZERS			N/A		
• PESTICIDES			N/A		
• OTHER					
DEPOSITION/DAMAGE					
• ONSITE			slight reduction /onsite deposition damage		
• OFFSITE			slight decrease/offsite deposition damage		
DEPOSITION/SAFETY					
• ONSITE			slightly improve onsite safety/deposition		
• OFFSITE			slightly improve offsite safety hazard/deposition		
OTHER					
RESOURCE: WATER					
RESOURCE CONCERN: WATER QUANTITY					
SEEPS			slight increase in seepage hazard		
RUNOFF/FLOODING			slight decrease in runoff/flooding		
EXCESS SUBSURFACE WATER			slight increase in excess subsurface water		
INADEQUATE OUTLETS			slight improvement in H2O outlet concern		
WATER MGT. IRRIGATION					
• SURFACE			N/A		
• SPRINKLER			N/A		
WATER MGT. NON-IRRIGATED			N/A		
RESTRICTED FLOW CAPACITY (H2O convey.)					
• ONSITE			slight improvement in onsite drainage		
• OFFSITE			slight improvement in offsite drainage		
RESTRICTED STORAGE			slight reduction in sedimentation of H2O storage		
OTHER					

RESOURCE: WATER	
RESOURCE CONCERN: WATER QUALITY	
RESOURCE INDICATORS	PHYSICAL EFFECTS
GROUNDWATER CONTAMINANTS	
• PESTICIDES	slight potential increase/GWater contam./pesticide
• NUTRIENTS AND ORGANICS	slight poten. increase in GWater contam./nutr,org.
• SALINITY	insignificant
• HEAVY METALS	N/A
• PATHOGENS	slight poten. increase/GWater contam./pathegens
• OTHER	
SURFACE WATER CONTAMINANTS	
• PESTICIDES	insignificant
• NUTRIENTS AND ORGANICS	slight increase in SWater contam./nutri.,organics
• SUSPENDED SEDIMENTS	insignificant
• LOW DISSOLVED OXYGEN	slight increase in SWater contam./low oxygen
• SALINITY	N/A
• HEAVY METALS	insignificant
• WATER TEMPERATURE	insignificant
• PATHOGENS	slight increase in SWater contam./pathegens
AQUATIC HABITAT SUITABILITY	moderate improvement in Aqua. Hab. Suit.
OTHER	
RESOURCE: AIR	
RESOURCE CONCERN: AIR QUALITY	
AIRBORNE SEDIMENT AND SMOKE PARTICLES	
• ONSITE SAFETY	N/A
• OFFSITE SAFETY	N/A
• ONSITE STRUCT. PROBLEMS	N/A
• OFFSITE STRUCT. PROBLEMS	N/A
• ONSITE HEALTH	N/A
• OFFSITE HEALTH	N/A
AIRBORNE SEDIMENT CAUSING CONVEYANCE PROBLEMS	N/A
AIRBORNE CHEMICAL DRIFT	N/A
AIRBORNE ODORS	N/A
FUNGI, MOLDS, AND POLLEN	N/A
OTHER	
RESOURCE CONCERN: AIR CONDITION	
AIR TEMPERATURE	N/A
AIR MOVEMENT (windbreak effect)	N/A
HUMIDITY	N/A
OTHER	

[illegible]

RESOURCE: HUMAN	
RESOURCE CONCERN: SOCIAL CONSIDERATIONS	
RESOURCE INDICATORS	PHYSICAL EFFECTS
PUBLIC HEALTH AND SAFETY	insignificant
PRIVATE/PUBLIC VALUES	insignificant
CLIENT CHARACTERISTICS	N/A
RISK TOLERANCE	N/A
TENURE	N/A
OTHER	
RESOURCE CONCERN: CULTURAL CONSIDERATIONS	
ABSENCE/PRESENCE OF CULTURAL RESOURCES	situational regarding cultural resources
SIGNIFICANCE OF CULTURAL RESOURCES	situational regarding cultural resources
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	situational regarding cultural resources
OTHER	